

**ABSTRACT**

A method is provided for detecting a compromised condition of a patient including the steps of (a) providing for imaging in three dimensions a region of interest; (b) providing for generating a set of 3-D image data corresponding to the imaging; (c) providing for processing the set of 3-D image data for determining a first volume of an imaged first structure within the region of interest, wherein the volume of the first structure does not change substantially during adulthood over a time interval selected from the group consisting of months and years; (d) providing for processing the set of 3-D image data for determining a second volume of an imaged second structure within the region of interest, wherein a substantial change during adulthood of the volume of the second structure over a time interval selected from the group consisting of months and years is indicative of the compromised condition; and (e) providing for calculating a ratio of the second volume to the first volume.